# SENWOT, A NEW GENUS OF ALYSINI (HYMENOPTERA: BRACONIDAE) FROM AFRICA

Robert A. Wharton
Department of Entomology, Texas A.&M. University
College Station, Texas 77843

Our knowledge of the interrelationships within the Alysiini is based almost entirely on the western Palearctic fauna. Yet two-fifths of the known genera are not found in this region. In other regions, however, most of the species and many of the genera are still undescribed. Before significant advances can be made in the higher classification of this tribe, much more basic descriptive work is needed. Description of this new genus will facilitate phylogenetic discussions during revisions now in progress of *Hovalysia* and related genera.

## SENWOT, new genus

Type-species: Senwot africanus, n. sp.

Head subcubical. Mandibles long, broadly expanded apically, with 4 teeth, the additional tooth formed from a dorsal-apical cleft of tooth l; teeth wellrouned, with tooth 2 protruding only slightly beyond teeth 1 and 3; diagonal ridge absent. Clypeus short, narrow, pointed, strongly protruding. First flagellomere slightly shorter than second. Pronope present. Sternaulus broad, crenulate, long, extending to mid coxa. Scutellum low, without posterior spine. Metanotum with midridge, but this not elevated as a tall flange or spine. Propodeal spiracle minute. Fore wing venation complete; lst radial segment arising before middle of narrowly elongate stigma; 2nd radial segment longer than cuqul; brachial cell narrow but well-developed, closed at distal corner by d3; parallel vein interstitial or nearly so; recurrent vein antefurcal to postfurcal; nervulus antefurcal; postnervellus long, well-pigmented, strongly antefurcal; radiella and cubitella weakly pigmented, cubitella a little longer than radiella; 1st mediellan segment nearly as long as 2nd mediellan segment, basella shorter than both. Tergum 2 striate; remainder of gaster unsculptured. Ovipositor sheath moderately hairy, the hairs relatively long.

Senwot belongs to the Phaenocarpa complex of alysiine genera (Fischer 1971, Wharton 1980) because of the long second flagellomere. The linearly elongate stigma with rl arising near the base, the absence of a diagonal ridge on the mandible, and the antefurcal nervulus combine to readily distinguish Senwot from all other genera in this complex.

Because Senwot is so distinctive, relationships between it and other genera are not readily apparent. The absence of the diagonal ridge, the sculpture of the abdomen, and the shape of the clypeus, however, suggest that its affinities are with Hovalysia and Hylcalosia. It must therefore be concluded that the anterior migration of the parallel vein has occurred independently in Senwot and the Heratemis-Phaenocarpa-Gnathopleura group of genera.

The diagonal ridge is list, reduced, or obscured in several unrelated alysine general. In some groups, such as Alloea and most Aspilota species, this is correlated with a reduction in mandible size and/or disappearance of the apical scoop. In most genera lacking a distinct diagonal ridge, the carina forming the ventral border in the mandible is straight, indicating a simple loss of the diagonal ridge. In Senwot, Hovalysia, Hylcalosia, and Microcrasis,

however, the carina curves dorsally from the apex, then back ventrally to the base, creating a concave ventral ridge when viewed ventral-posteriorly. Thus suggests that the diagonal ridge has fused with the carina.

Senwot is dedicated to Dr. Henry Townes. Senwot is Townes in reverse, and the gender is masculine.

## Senwot africanus, n. sp.

Head about 1.4 times broader than long; 1.5 times broader than mesonotum. Head in dorsal view slightly wider at eyes than at temples; eyes about twice length of temples in lateral view. Frons, vertex, occiput, and temples with only a few scattered hairs. Eye hairs sparse, minute, barely visible at 32X; malar space nearly absent. Face convex; midridge broad, polished, extending between antennal bases as a carina nearly to median ocellus, where it bifurcates to form a short v; surface of face transversely strigose and distinctly punctate; face about 1.9 times wider than high. Frons with weak striae extending ventrally and laterally from midridge, otherwise smooth and polished. Clypeus narrow, triangular, strongly protruding; epistomal sulcus deep, broad, trough-like; face nearly 3 times wider than clypeus. Paraclypeal pits small, distant from eye. Mandible (Fig. 2) about 1.5 times longer than apical width; apex broadly expanded, about 1.5 times wider than base; mandible about 0.55 times length of head; original tooth I with dorsal-most is smaller; ventral-most about equal in size to tooth 3, tooth 2 slightly larger than these, and more distinctly triangular; upper border strongly, though asymmetrically concave, lower border symmetrically concave; mandible surface weakly rugose, hairy. Antennae about equal in length to body plus ovipositor; 29 segmented; first flagellomere about 0.8 times length of second; remaining flagellomeres relatively long and slender, fifth flagellomere about 2.5 times longer than wide. Maxillary palps 6 segmented, about 0.95 times length of thorax.

Thorax twice longer than wide. Pronotal collar with pronope as a simple, round pit, collar otherwise smooth except for shallow, weakly crenulate transverse sulcus posteriorad pronope. Mesonotum sharply declivous anteriorly; notauli broad, foveolate, complete to broadly oval midpit. Median mesonotal lobe hairy, with 35-40 more or less decumbent hairs covering anterior 0.66, posterior-most hairs longer and more erect; lateral lobes with scattered, erect hairs, mostly around border; median mesonotal lobe distinctly raised above level of lateral lobes. Prescutellar pit with 3 evenly spaced ridges; about 2.65 times wider than long. Scutellum sparsely hairy, flat. Metanotum with lateral fields sculptured with longitudinal ridges. Propodeum with median longitudinal carina over basal 1/4th, areas laterad carina largely smooth; remainder reticulate, with reticulations more widely spaced apically. Sternaulus very broad, foveolate, sinuate, extending posteriorly to mid coxa, and continuing uninterrupted dorsally through subalar area; remainder of mesopleuron largely smooth, with about 10-12 hairs clustered ventral-posteriorly; mesopleural fovea an isolated pit. Metapleuron with median unsculptured area large, with a few scattered hairs; dorsalposterior and ventral-posterior areas deeply excavated; anterior-ventral area densely hairy. Tibial spurs, especially inner spur of hind tibia, hairy; hind tibia at apex with well-defined comb medially.

Wing (Fig. 1): Stigma long, narrow, similar to members of the Dapsilarthra apii group; roughly 7 times longer than wide; rl arising from basal 1/3rd; r2 about twice length of rl; r3 ending at wing tip; cuqul bent,

roughly 0.7 times length of r2; n. rec. interstitial or very weakly antefurcal; n. distinctly antefurcal. Hind wing with 3 hamuli; postnervellus pigmented and sclerotized, extending basad nearly to wing margin at a 45-60° angle from mediella; second mediellan segment about 1.5 times longer than lst, roughly 3 times longer than basella.

Abdomen: Apical width of petiole subequal to its length; apex about twice wider than base; surface striate. Tergum 2 (Fig. 30 striate, anterior border carinately margined except for median 1/3rd. Ovipositor sheath 0.95 times length of thorax; ovipositor roughly 1.65 times longer than thorax.

Color dark brown; mandible orange; legs, palps, scape, and pedicle yellow, except hind coxae brown and fore and mid coxae yellow-brown.

Length: 3.2 - 3.5 mm.

Holotype: Female, Nigeria: Aba, June 1967, J. Townes (Townes).

Paratype: Nigeria: Ibadan, I F. 16. VII. 1962, D. C. Eidt, Malaise trap

(Ottawa). Other specimens: Congo Belge (= Zaire): Yangambi, 2 M, Nov. 23, 1950, J. M. McGough (Washington).

It seems probable that the two specimens from Zaire (in USNM) are the males of this species because of their morphological similarity. However, a single male in the CNC from the Ibadan locality is considerably different (see below), thus necessitating a cautionary interpretation. I have therefore labeled the males from Zaire as this species, but not as paratypes. They differ from the females described above as follows: Middle flagellomeres longer, more slender; antenna 27 segmented in one specimen, broken in other; stigma longer, with rlarising from basal fifth; ratio of cuqul to r2 = 0.80; nervulus more strongly antefurcal; scutellum not as flattened; and petiole proportions more variable. The striae on tergum 2 are bordered posteriorly by a sulcus, but this may be an artifact as both specimens are in poor condition. The two males were reared during an exploration program for fruit fly parasitoids, apparently from puparia in false kamani or mixed Sapotaceae (Clausen et al. 1965).

In addition to the four specimens referred to S. africanus, I have seen a fifth specimen which apparently represents a new species. Since there is but a single male, however, its description at this time would be premature. It has all the features listed for the genus, but differs from S. africanus in the shape of the head, sculptural details, and especially the venation.

### **ACKNOWLEDGMENTS**

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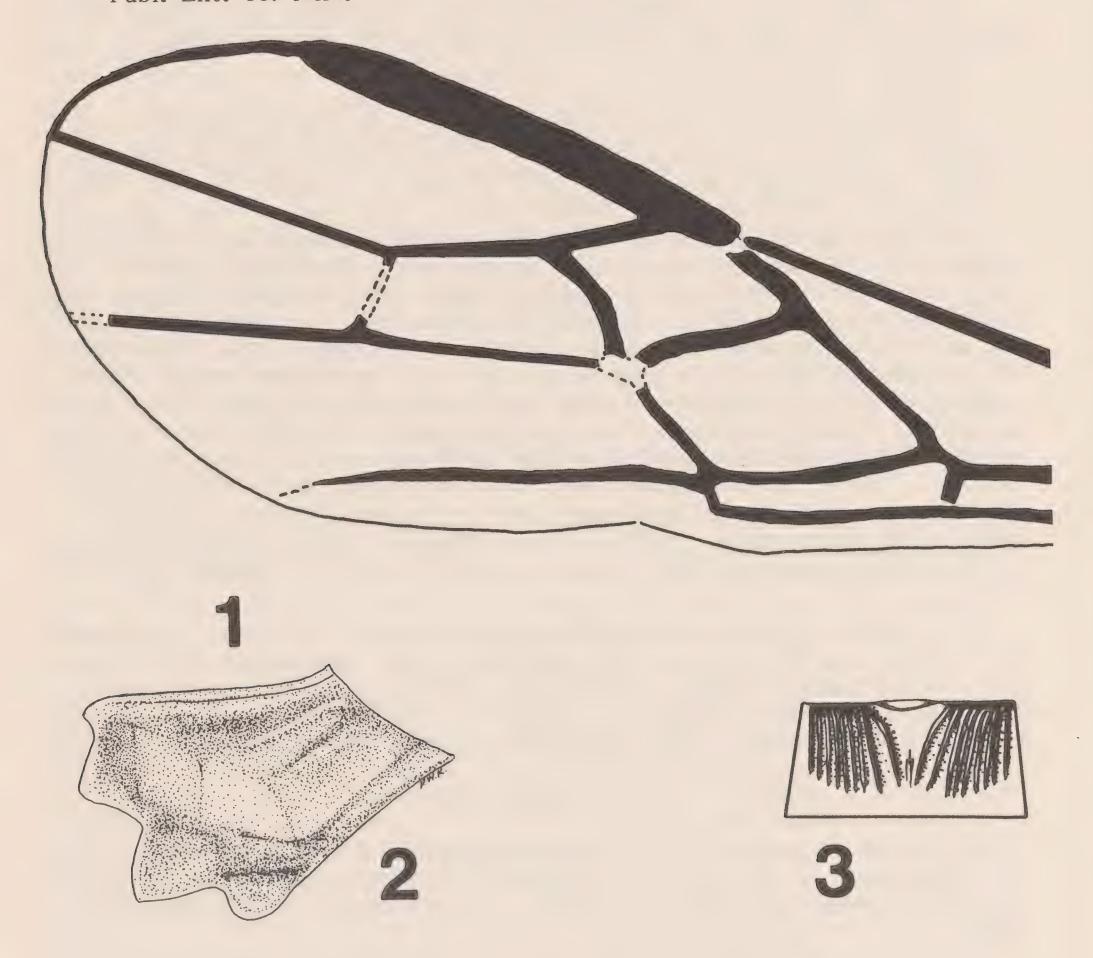
### REFERENCES

Clausen, C. P., Clancy, D. W. and Chock, Q. C. 1965. Biological control of the Oriental fruit fly (Dacus dorsalis Hendel) and other fruit flies in Hawaii. USDA Tech. Bull. 1322.

Fischer, M. 1971. Untersuchungen uber die Europaischen Alysiini mit besonderer Berucksichtigung der Fauna Niederosterreichs. Polskie Pismo Ent. 41: 19-160.

Wharton, R. A. 1977. A New World Aphaereta species (Hymenoptera: Braconidae), with a discussion of terminology used in the tribe Alysiini. Ann. Ent. Soc. Amer. 70: 782-803.

Wharton, R. A. 1980. Review of Nearctic Alysiini (Hymenoptera: Braconidae) with discussion of generic relationships within the tribe. Univ. Calif. Publ. Ent. 88: 1-112.



FIGS. 1 - 3. Senwot africanus, n. sp. Female. 1, Fore wing. 2, apical 0.6 of mandible. 3, Second abdominal tergite.